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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,984	11/07/2001	Satoru Kawakami	7217/65957	1207

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EXAMINER

NATNAEL, PAULO S M

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/052,984

Applicant(s)

KAWAKAMI, SATORU

Examiner

Paulos M. Natnael

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8 and 9 is/are rejected.
- 7) ☒ Claim(s) 5-7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/9/02.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **1-4,8,9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kempisty, U.S. Patent No. 6,714,264.

3.

Considering claim 1, Kempisty discloses the following claimed subject matter, note;

a) a first tuner portion for receiving a first broadcast wave and outputting first transport stream data achieved by multiplexing encoded data on sounds and/or pictures

contained in the first broadcast wave, is met by tuner 112, fig.2;

b) a second tuner portion for receiving a second broadcast wave different from the first broadcast wave and outputting second transport stream data achieved by multiplexing encoded data on sounds and/or pictures contained in the second broadcast wave, , is met by tuner 212, fig.2;

except for;

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c) said first and second tuner portions being provided on a board, wherein said first tuner portion is provided on one surface of said board and said second tuner portion is provided on the other surface of said board.

Regarding c), Kempisty does not specifically disclose whether or not the first and second tuner portions are mounted on opposite surfaces of the circuit board. However, the Examiner takes official notice in that it is well known in the art to mount electronic devices such as the tuner and other similar devices in opposite sides of the circuit board so that Electromagnetic interference (EMI) is minimized among the devices or components and, therefore, it would have been obvious to the skilled in the art at the time the invention was made to modify the system of Kempisty by mounting the tuner circuits on opposite sides of the circuit board in order to prevent interference or noise from each other.

Considering claim 2, the tuner apparatus as claimed in claim 1, wherein said first tuner portion and said second tuner portion are disposed so as not to be confronted to each other through said board.

See rejection of claim 1(c).

Considering claim 3, the tuner apparatus as claimed in claim 2, wherein said first tuner portion and said second tuner portion are provided in the neighborhood of both the ends of said board, respectively.

See rejection of claim 1(c).

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Considering claim 4, the tuner apparatus as claimed in claim 1, wherein a first wire pattern for transmitting the first transport stream data is formed on the one surface of said board on which said first tuner portion is provided, and a second wire pattern for transmitting the second transport stream data is formed on the other surface of said board on which said second tuner portion is provided.

See rejection of claim 1(c).

Considering claim 8, Kempisty discloses the following claimed subject matter, note;  
a) a tuner apparatus in which a first tuner portion for receiving a first broadcast wave and outputting first transport stream data achieved by multiplexing encoded data on sounds and/or pictures contained in the first broadcast wave is provided on one surface of a board, and a second tuner portion for receiving a second broadcast wave different from the first broadcast wave and outputting second transport stream data achieved by multiplexing encoded data on sounds and/or pictures contained in the second broadcast wave is provided on the other surface of said board;

Regarding a), see rejection of claim 1.

b) decoding means for decoding the first transport stream data and said second transport stream data, is met by Transport Decoders 114 and 214, respectively. (fig.2)

c)an output terminal for supplying the first and second transport stream data thus decoded to a display device for outputting the sounds and/or the pictures, is met by video processor 148, fig.2;

Considering claim 9, the receiver apparatus as claimed in claim 8, further comprising:

a) selecting means for selecting at least one of the first transport stream data and the second transport stream data, is met by MUX 220, fig.2;

b) and recording means for recording at least one of the first transport stream data and the second transport stream data selected by said selecting means, is met by VBV Buffers 136 ,138, 140 fig.2;

#### ***Allowable Subject Matter***

4. Claims **5-7** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to disclose, a tuner apparatus wherein a board has a first wire pattern layer on which said first wire pattern is formed, a second wire pattern layer on which said second wire pattern is formed, and an insulating layer sandwiched between said first wire pattern layer and said second wire pattern layer, and at least one ground layer for intercepting undesired radiation noises of said first tuner portion and said second tuner portion is formed on said insulating layer, as in claim 5.

**Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


**Kubo**, U.S. Patent No. 4,772,862 discloses a filter apparatus wherein low-pass filters are provided on opposite surfaces of the substrate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (703) 305-0019. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PMN  
September 10, 2004

  
PAULOS M. NATNAEL  
PATENT EXAMINER